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Antennæ quatuor flagellis confectæ, non pediformes. *Animalia gressoria.*

Genus ICILIUS.

Antennæ elongatæ, secundæ longiores. *Pedes* non prehensiles, toti vergiformes, apicem unguiculati. *Styli caudales* sex, furcati.

Icilius ovalis. — Cephalothorax ellipticus, capite brevi latè triangulato, frontem lateraque obtuso. Oculi remotissimi. Segmentum thoracis primum angustius et brevissimum. Abdomen 7-articulatum, segmentis tribus anticis ad marginem posticum medianum acutis, segmento ultimo parvulo ovato. Antennæ subteretes: 2dæ corpore longiores, flagello fere duplo longiore quam basis, tenuissimo: 1mæ fere dimidio breviores, flagello non duplo longiore quam basis. Pedes 4 antici infra densè hirsuti; 6 postici inter sese similes; 7mi 6tis valde longiores, tenues, fere nudi.

Long. 2‴. — *Hab.* in freto "Balabac," juxta Borneo.

Three hundred and twenty-eighth meeting.

February 13, 1850. — Quarterly Meeting.

[This statute meeting was held in virtue of an adjournment from January 30th, on account of the accidental omission of the usual circular notice to the Fellows.]

The President in the chair.

Professor Guyot, from the committee on the resolutions in behalf of the establishment of a system of meteorological observations in the State of Massachusetts, reported in favor of their adoption. The report was accepted, and the resolutions adopted.

Professor Peirce, Professor Guyot, and Dr. H. I. Bowditch were appointed a committee to bring the subject to the consideration of the Legislature now in session.

The Librarian brought to the notice of the Academy a chart of the ancient mounds, or earth-works, at Marietta, by Winthrop Sargeant, addressed in the year 1788 to Governor Bowdoin, President of the Academy. The Librarian found this among the manuscript papers in his custody, and considers it as very interesting from its being an earlier survey than that which is published in the first volume of the *Smithsonian Contributions to Knowledge*, with which it corresponds in most particulars, while it exhibits some parts which do not appear in the later chart, showing that some changes may have taken place during the interval.

Mr. Desor made some remarks on the columnar crystallization of ice in gravel or clay, and offered an explanation of the phenomenon, differing in some respects from that of a writer in a late number of *Jameson's Journal.*

Further remarks on the subject were made by Professor Rogers, Dr. C. T. Jackson, Mr. Treadwell, and others.

Dr. C. T. Jackson, from the committee on coast marks, submitted the following report: —

" The committee appointed to consider the subject of permanent coast marks for the determination of the future changes of level of the coast of the United States, have attended to their duty, and beg leave to present the following report.

" It is now more than a century since the great Swedish philosopher, Celsius, announced that, from observations made on the coast of Sweden, he had arrived at the conclusion that the relative level of the land and sea was not fixed, but that undoubted changes took place, which he, at that time, ascribed to the subsidence of the waters of the Baltic Sea.

" It was not until the beginning of this century, that it was discovered that the change, instead of being the result of a subsidence of the waters, was due, on the contrary, to a gradual rise of the land. The bearing of this discovery was too obvious to be overlooked. It not only afforded the means of explaining many geological phenomena, but it seemed also to involve the future destinies of all coasts undergoing similar changes. Surveys, accordingly, were ordered by the Swedish government, as long ago as the year 1820, to discover the amount of change in a given time; and we are already in possession of records, which enable us to estimate with accuracy the amount of upheaval in many places.

" The example set by the Swedish government has been followed by others, not along the coasts of Europe merely, but even in the southern hemisphere, marks having been established by order of the British government on the coast of Van Diemen's Land, for the same purpose. Were it necessary to urge the paramount importance of such examinations, both in a scientific and practical point of view, your committee would simply recall the words of that illustrious naturalist, Alexander von Humboldt, who says, 'If similar measures had been taken in Cook's and Bougainville's earliest voyages, we should now be in possession of the necessary data for determining whether secular variation in the relative level of land and sea is a local phenomenon, and whether any law is discoverable in the direction of the points which rise and sink simultaneously.' If such a law exists, it can be demonstrated only by a sufficient number of observations made on the several continents.

"Your committee deem the establishment of similar land-marks on the American continent the more important, because the whole eastern coast of the United States exhibits evidence of a gradual rise of the land during the most recent geological periods, in the deposits of recent marine shells, which are to be seen, undisturbed in their natural position, many feet above the highest tides. There are, moreover, direct indications of a gradual rise of the land actually in progress on and around the island of Newfoundland, and, according to one of your committee, similar indications may be traced along the coast of Maine.

"A system of land-marks established at measured heights above mean sea-level on both shores of North America, within the limits of the United States, would eventually determine whether any changes in the relative level of sea and land take place, and whether such changes, if they do take place, are general or local, and whether there is any thing like a balance movement in this continent, whereby one coast rises while another sinks.

"The preliminary step to be taken is to cause a series of careful tidal observations to be made at the places where the marks are to be established, in order to determine the mean sea-level at those places, to serve as a fixed plane of reference. These observations might, as your committee suppose, be made under the direction of the Superintendent of the Coast Survey, whose well-known regard for science warrants the belief that he would cheerfully lend his aid to accomplish that important object. Your committee, therefore, propose that the aforesaid system of operations be recommended, by the Academy, to the Secretary of the Treasury of the United States, with the request that he would instruct the Superintendent of the Coast Survey to cause suitable observations to be made to effect the objects herein recommended, by the establishment of permanent marks or monuments at ascertained heights above the mean sea-level, at suitable intervals, along the eastern and western coasts of the United States; and also that he be requested to cause a record of the observations and marks or monuments to be made and furnished to the various scientific institutions in this country.

"All of which is respectfully submitted, by

CHARLES T. JACKSON,
E. DESOR,
EDWARD C. CABOT,
CHARLES H. DAVIS."

This report was accepted, and the Corresponding Secretary was instructed to forward an authenticated copy to the Secretary of the Treasury.

Judge Shaw paid a feeling tribute to the memory of the late Dr. Martin Gay, for many years a distinguished Fellow of the Academy. He spoke of his attainments as a chemist, and especially as an adept in medical jurisprudence, and of the peculiar faculty he had of rendering scientific principles and processes intelligible to a jury. In conclusion, he offered the two following resolutions, to which a third was added by Mr. J. Hale Abbot.

"*Resolved,* That the Academy have received, with the deepest feelings of sorrow, intelligence of the decease of our lamented associate, Dr. Martin Gay, in the vigor of life, and in the midst of his usefulness.

"*Resolved*, That, regarding our late associate as a man of learning, ardently devoted to the pursuit of useful science, as a member of society and of a learned profession, of singularly pure and elevated principles, and of undeviating integrity, as a friend, amiable and beloved in all the relations of life, we shall ever cherish the recollection of his virtues, and hold his memory in the highest respect.

"*Resolved*, That the Fellows of the Academy sincerely sympathize with the family of the deceased in their bereavement; and that a copy of these resolutions be transmitted to them, in token of respectful condolence."

These resolutions were unanimously adopted.

The following gentlemen were elected Fellows of the Academy: —

Professor Henry L. Eustis, of Cambridge.

Samuel L. Abbot, M. D., of Boston.

S. Stehman Haldeman, Esq., of Columbia, Pennsylvania.

The Council of Nomination reported certain nominations for the list of Foreign Honorary Members.

Three hundred and twenty-ninth meeting.

March 5, 1850. — MONTHLY MEETING.

The PRESIDENT in the chair.

The Corresponding Secretary read a letter from S. S. Haldeman, Esq., of Columbia, Pennsylvania, signifying his acceptance of his election as a Fellow of the Academy.

The Council reported a list of candidates, duly recommended, to be ballotted for as Foreign Honorary Members at the ensuing Annual Meeting.

Mr. Teschemacher gave a brief account of a recent treatise by James D. Dana, Esq., on the isomorphism and atomic volume of minerals.

Dr. B. A. Gould, Jr., gave a detailed account of a series of experiments he had recently witnessed, made at Washington, under the direction of the United States Coast Survey, by means of the electric telegraph, which were thought to furnish important data respecting the velocity of the electric current through the wire. This gave rise to an animated discussion.

Professor Peirce made some remarks on the theory of vibrating dams, and stated that these vibrations were beautifully exhibited at the great dam just erected at Holyoke, upon the River Connecticut. They were plainly not vibrations of the